



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 155
Seattle, Washington 98101-3123

ENFORCEMENT &
COMPLIANCE ASSURANCE
DIVISION

MAY 28 2019

Reply To: 20-CO4

CERTIFIED MAIL — RETURN RECEIPT REQUESTED

NOTICE OF VIOLATION

Captain Howard Markle
PSNS & IMF Commanding Officer
Commander
Attn Code 106
Puget Sound Naval Shipyard and IMF
1400 Farragut Avenue, Stop 2029
Bremerton, Washington 98314-2029

RECEIVED
MAY 28 2019

BY: _____

RECEIVED
JUN 04 2019

BY: *RLO*

Re: Puget Sound Naval Shipyard and Intermediate Maintenance Facility
NPDES Compliance Inspection and Federal Facility Compliance Agreement
NPDES Permit Number WA0002062

Dear Captain Markle:

On April 1, 1994, the U.S. Environmental Protection Agency (EPA) issued a National Pollutant Discharge Elimination System (NPDES) permit to the Puget Sound Naval Shipyard and Intermediate Maintenance Facility ("Facility"), NPDES Permit Number WA0002062 ("Permit"). The Permit became effective on April 1, 1994 and expired on April 1, 1999. Subsequently, the Permit was administratively continued.

On September 26, 2018, the EPA conducted an inspection of the Facility. I would like to express my appreciation for your staff's time and cooperation during the inspection. For your information, a copy of the inspection report is attached to this notice of violation letter as Enclosure 1. The purpose of the inspection was to determine the Facility's compliance with the requirements of the Clean Water Act (CWA) and the Permit. This letter is to notify you of violations EPA discovered during the September 2018 inspection and to require corrective actions by the Facility to remedy the violations. In addition, the Federal Facility Compliance Agreement docket number CWA-10-2013-0045 (FFCA) required compliance with the Permit by December 31, 2017. The violations noted during the September 2018 inspection are as follows:

Discharge Limitation Violations

Part I.A.1.a. of the permit specifies discharge limitations for total recoverable copper. During the period from October 2013 to August 2018 (month prior to inspection), there were 355 exceedances of copper loading and concentration limits. The specifics of the effluent limit exceedances are in Enclosure 2.

History of Noncompliance

On numerous occasions over the last 11 years, EPA has notified and attempted to work with the Navy to achieve compliance with the Permit specifically as it relates to exceedances of the Permit's effluent limits, including exceedances of copper. An FFCA was lodged in 2009 in response to 75 reported exceedances of the Permit's limits from May 2003 to July 2009. In the 2009 FFCA, the Navy agreed to undertake several actions, including, *inter alia*, to improve source control, implement better dry-dock cleaning practices, and improve the efficiency and effectiveness of the process water collection system.

The 2009 FFCA did not result in achieving any lasting Permit compliance. During the period from May 2009 to October 2012, there were 53 reported exceedances of the Permit's effluent limits for recoverable copper. These violations led to the 2013 FFCA mentioned above. The 2013 FFCA also included agreements that promised, *inter alia*, maintenance and upgrades to the process water collection and monitoring systems. Additionally, the Navy agreed to infrastructure improvements for Dry Dock 6 and to seek funding for similar improvements to Dry Dock 5. As stated above, the agreement required compliance by December 31, 2017.

Despite entering into another FFCA in April 2013, the Facility continued to violate the Permit limits as it relates to recoverable copper. Indeed, there have been 355 documented violations from September 1, 2013 to September 1, 2018 for exceeding the Permit's limits for recoverable copper. Since the agreed upon compliance date of December 31, 2017, there have been multiple violations related to the Facility's copper limitations over a three-month period between June and August 2018.

Puget Sound Naval Shipyard and Intermediate Maintenance Facility is required to respond, in writing, to the findings stated above **within thirty (30) days** of receipt of this letter. The response must include the cause of each violation and corrective measures that has and/or will be taken by the Facility to prevent future reoccurrence of the violation. In addition, we must start discussions on whether the current FFCA needs to be revised to reflect current understanding of the cause of the copper exceedances. I understand that Trevor Richardson of your staff, and Chae Park of mine, have begun discussions regarding the FFCA and its continuing utility toward full compliance with the Permit.

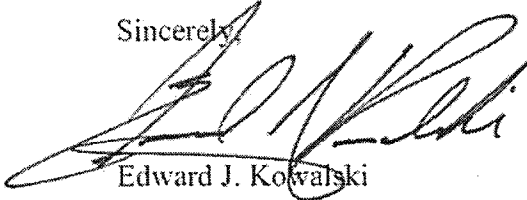
This request for information is made under the authority of Section 308 of the Clean Water Act (CWA), 33 U.S.C. § 1318. In accordance with the provisions of 40 C.F.R. § 2.203(b), you may assert a business confidentiality claim covering part or all the information submitted by clearly identifying it as "confidential." If no such claim accompanies the information when it is received by the EPA, it may be made available to the public without further notice. Please send your response to:

Chae Park
Compliance Officer
Water and Wetlands Enforcement Unit
U.S. Environmental Protection Agency
1200 Sixth Avenue, Suite 155
M/S: 20-CO4
Seattle, Washington 98101

Although EPA's goal is to ensure NPDES facilities comply fully with their permits, the ultimate responsibility rests with the permittee. As such, I want to strongly encourage the Facility to continue its efforts to maintain full knowledge of the Permit requirements, and other appropriate statutes, and to take appropriate measures to ensure compliance. Notwithstanding the Facility's response to this letter, EPA retains all rights to pursue enforcement actions to address these and any other violations.

If you have any questions concerning this matter, please do not hesitate to call Chae Park of my staff at (206) 553-1441.

Sincerely,



Edward J. Kowalski
Director

Enclosure

1. Inspection Report
2. List of Effluent Violations

cc: Mr. Trevor Richardson
Puget Sound Naval Shipyard and Intermediate Maintenance Facility

NPDES Inspection Report

Permit # WA0002062

Puget Sound Naval Shipyard

Bremerton, WA

September 26, 2018

Prepared by:

Matt Vojik

Environmental Protection Agency (EPA), Region 10

Office of Compliance and Enforcement (OCE)

Multimedia Inspection & RCRA Enforcement Unit (MIREU)

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ATTACHMENT D – Summary of Effluent Limit Violations since September 2013

I. Facility Information

Facility Name: Puget Sound Naval Shipyard (PSNS) and Intermediate Maintenance Facility (IMF)

Facility Owner/Operator: U.S. Navy

Facility & Mailing Address: 1400 Farragut Ave, Bremerton, WA 98314-5001

Lat/Long: +47.56212°, -122.63729°

NAICS Codes: 336611 – Ship Building and Repair
928110 – National Security

NPDES Permit: WA0002062

Receiving Water: Sinclair Inlet on the Puget Sound

Facility Contacts: Cody S. Matheson, Environmental Division Head
Code 106.3
1400 Farragut Ave, Bremerton, WA 98314-5001
Office Phone: 360-476-6009
Cell Phone: 360-471-0482
Fax: 360-476-8550
Email: cody.matheson@navy.mil

Trevor Richardson, NPDES Program Manager
Code 106.32
1400 Farragut Ave, Bremerton, WA 98314-5001
Office Phone: 360-476-0118
Cell Phone: 360-535-2898
Fax: 360-476-8550
Email: trevor.richardson@navy.mil

Paul Caswell, Stormwater Program Manager
Email: paul.caswell@navy.mil

(Unless otherwise noted, all details in this inspection report were obtained from conversations with Mr. Trevor Richardson, Mr. Paul Caswell, or from observations during the inspection.)

II. Inspection Information

Inspection Date: September 26, 2018

Inspectors: Matt Vojik, Inspector, EPA Region 10, OCE / MIREU

Arrival Time: 8:40 AM
Departure Time: 2:25 PM
Weather: Sunny
Purpose: To determine compliance with NPDES Permit WA0002062 and the Clean Water Act.

III. Permit Information

This facility is operating under NPDES Permit WA0002062. The permit became effective on April 1, 1994 and has been administratively extended since April 1, 1999.

IV. Background

The facility occupies about 350 acres located on the west side of the ferry terminal in Bremerton, WA. The shipyard is comprised of six drydocks, nine piers, four moorings and various industrial yards and buildings. Primary industrial activities involve the maintenance and dismantling of ships and submarines. The facility employs over 12,000 people. The Navy has owned and operated facilities at this location since 1891. In 1990, the Navy authorized a program to deactivate and recycle nuclear powered ships at the Puget Sound Naval Shipyard (PSNS).

PSNS is organized into departments with numerical designations called codes. Code 106 is the Environment, Safety, and Health Office, which oversees NPDES compliance. Mr. Trevor Richardson has been the NPDES Program Manager under the Code 106.32 since the beginning of 2018.

On April 4, 2013, the facility entered into a Federal Facility Compliance Agreement (FFCA), which specified corrective actions and upgrades to address repeated exceedances of the permitted effluent limits for recoverable copper. Status reports from the facility indicate that FFCA compliance activities have been completed since June 5, 2018.

The facility was last inspected for NPDES permit compliance on September 23, 2015 by the EPA.

V. Inspection Chronology

This was an announced inspection. I called Mr. Richardson on September 19, 2018 and made arrangements to meet on the day of the inspection. I met Mr. Richardson, Mr. Paul Caswell and Mr. Justin Hubbs at the ferry terminal at 8:40am on September 26, 2018. They escorted me to the conference room of their office building. I was accompanied throughout the inspection by facility representatives. I was not denied access to the facility.

Note that if an inspector does not have a security access badge on file at PSNS, the facility requests the submittal of a "Regulatory Personnel Certification Form." The facility also prohibits visitors and staff from carrying equipment with photographic or recording capabilities. Mr. Richardson arranged for the facility to provide an authorized photographer to accompany us and take inspection photographs, which underwent a security screening and were emailed to me on October 5, 2018. The photographer's availability did not affect the progress of the inspection.

I began the inspection with an opening conference. I presented my credentials to the attendees and provided Mr. Richardson an EPA Small Business Resources Information Sheet. After taking a tour of the facility, I conducted a records review. I ended with a closing conference to discuss observations and next steps. The attendees of the opening conference are listed under "INBRIEF" in Attachment C. The same attendees were present at the closing conference along with additional attendees listed under "OUTBRIEF" in Attachment C.

VI. Site Review

Mr. Richardson and Mr. Caswell took me on a tour of the facility. Schematic diagrams appear in Attachment A and a photograph log appears in Attachment B.

I visited the steam plant and inspected the sampling points for Outfall 021, consisting of a composite sampler (Photo 1) and grab sampling port (Photo 2). Mr. Richardson said that the facility plans to decommission Outfall 021 in 2019 after a planned facility upgrade that will direct all steam plant wastewater to the sanitary sewer system.

I visited the drydocks and inspected the sampling points for Outfalls 018, 018A and 096. These sampling points consisted of normally closed valves located on pumpwell discharge pipes. Mr. Richardson said that Outfall 096 rarely discharges because flows from Drydocks 1, 2 and 3 are directed to Outfalls 018 and 018A at Drydocks 4 and 5. Outfall 096 is used as an alternative discharge point for Drydocks 1, 2 and 3 when docking or maintenance activities block the passage of flow to the pumpwells at Drydocks 4 and 5.

Outfall 019 is located at Drydock 6, which is the facility's largest drydock. I inspected the sampling point at Outfall 019, which consists of a normally open valve connected to a long plastic tube (Photo 3) that drains to a utility sink. Mr. Richardson said that the facility replaces the tube approximately once per month.

Mr. Richardson said that drydocks drain through grated channels along the perimeter of the drydock floors. The floor drains are connected to process water control systems (PWCS), which control discharges to the Sinclair Inlet or the sanitary sewer system. Each PWCS is equipped with a settling basin, process water tank and real-time turbidity meters. When turbidity exceeds 100 nephelometric turbidity units (NTU), flows are directed to on-site oily water treatment systems, which discharge to the sanitary sewer system.

Environmental Safety and Health (ESH) managers conduct weekly inspections of the drydocks for best management practices. Effluent samples are collected and analyzed by the facility's on-site chemistry laboratory.

The facility also implements a Stormwater Pollution Prevention Plan (SWPPP), which identifies nine drainage zones for non-drydock stormwater. Six industrial zones are inspected monthly and three non-industrial zones are inspected quarterly. SWPPP training is provided by disseminating information twice annually via the facility's ESH Newsletter. Stormwater treatment systems are located at Pier B, the metal cutting area, the steel yard, and recycled metal transfer station. The permit does not require analytical monitoring of non-drydock stormwater discharges.

VII. File Review

I reviewed the following records:

- NPDES Permit
- FFCA Status Reports
- Discharge Monitoring Reports (DMRs)
- Non-Compliance Reports
- Laboratory Quality Manual dated 06/30/2017
- Standard Operating Procedure (SOP) 017 for Sampling Pumpwell Outfalls
- SOP 095 for Outfall 021 Sampling, Field Measurements and Administrative Actions
- Sampling Records, Analytical Reports, Data Logs and Calculations
- Process water discharge logs
- SWPPP last updated on 09/07/2017
- Best Management Practices (BMP) Plan
- Drydock Inspection Records

VIII. Areas of Concern

A. Discharge Limitation Violations

Part I.A.1.a. of the permit specifies discharge limitations for total recoverable copper.

Based on my review of DMR data and a summary report of effluent limit violations (**Attachment D**), the facility has recorded 355 violations of the effluent limit for total recoverable copper since September 2013. Mr. Richardson pointed out that some of the recent violations consisted of loading exceedances calculated with particularly high flows from Drydock 6. He said that non-contact cooling water from a docked vessel can contribute approximately 12 to 14 million gallons per day to the discharge.

B. Illicit Discharges

Part I.A.1. of the permit authorizes specific types of discharges, which do not include sanitary sewage.

Over the past five years, the facility has reported multiple sanitary sewage discharges associated with sewer system overflows and cross connections with the stormwater drainage system. Most recently, the facility discovered a contractor's trailer with a sewage connection to a roof drain, that discharged to the Sinclair Inlet via the stormwater collection system. This cross-connection had been in place since May 2016 and was discovered in September 2018 after fecal contamination was identified during a monthly surface water sampling event. In June 2015, surface water sampling similarly identified fecal contamination that was traced to a restroom that had been plumbed to the stormwater drainage system for multiple years.

Mr. Richardson said that the Naval Facilities Engineering Command (NAVFAC) was developing new procedures for investigating sources of fecal contamination identified during future surface water monitoring events. He also said that NAVFAC was reviewing recent construction projects for other potential inadvertent cross-connections.

C. Sample Methods for Oil and Grease

Part IV.B. of the permit states that "monitoring must be conducted according to test procedures approved under 40 CFR Part 136."

AND

Part IV.A. of the permit states that "samples and measurements shall be representative of the volume and nature of the monitored discharge."

AND

Section 8 of EPA Method 1664 (Oil and Grease) instructs the sampler to "collect approximately one liter of representative sample in a glass bottle... The high probability that extractable matter may adhere to sampling equipment and result in measurements that are biased low precludes the collection of composite samples for determination of oil and grease."

I noted that the facility uses a long plastic tube (Photo 3) to collect grab samples for oil and grease at Outfall 019. Although I have not found this technique specifically discussed in approved sampling methods for oil and grease, I noted that the potential for extractable matter to adhere to the plastic sampling tube, combined with the facility's practice of replacing this tube on a monthly basis, could result in measurements that are biased low and not representative of the monitored discharge.

IX. Closing Conference

I held a closing conference with facility representatives. A sign-in sheet of attendees appears in **Attachment C**. I discussed the areas of concern identified during the inspection and I gave a brief overview of the post-inspection process. I thanked everyone for their time and assistance with the inspection.

Report Completion Date: _____

Lead Inspector Signature: _____

ATTACHMENT A - Schematic Diagrams

Detail views include:

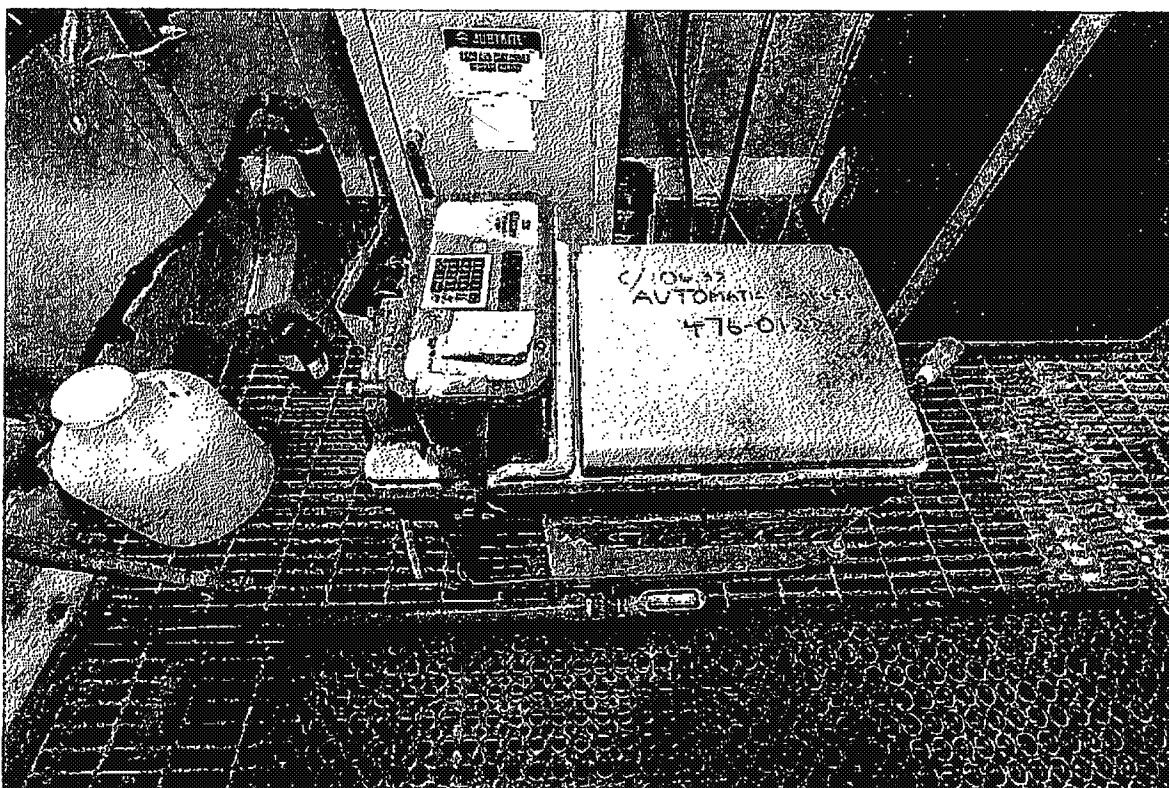
- Controlled Industrial Area (CIA) Waterfront
- Naval Base Kitsap (NBK) Waterfront

ATTACHMENT B – Photograph Log

Note: Photographs were taken on September 26, 2018 by a facility photographer with a Canon EOS 5D Mark IV camera and provided to the EPA via email on October 5, 2018.

18-1514 26SEP2018

RELEASED



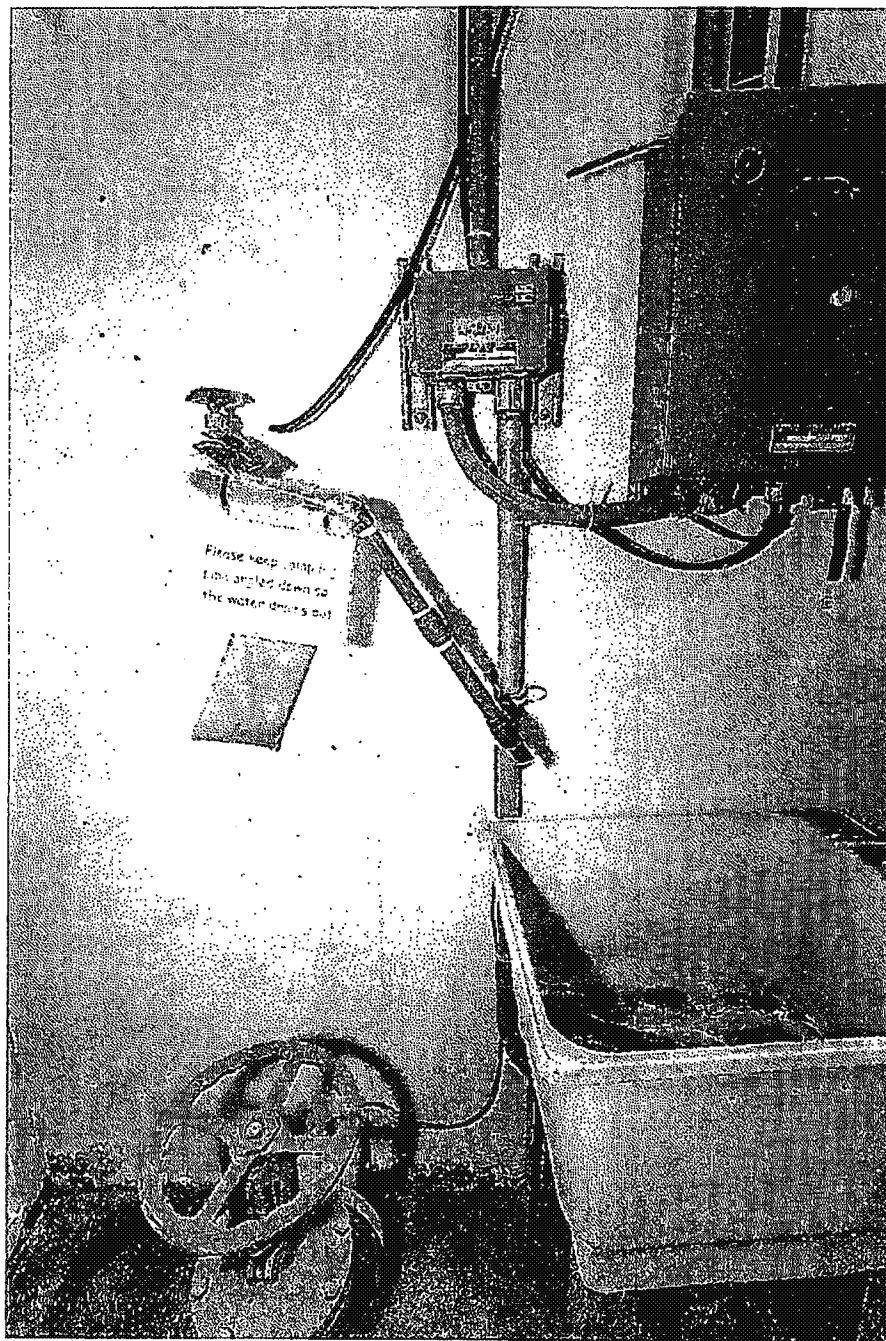
PSNS&IMF, Bremerton, WA
DISTRIBUTION STATEMENT A: Approved
for public release. Distribution is unlimited.

RELEASED

Photo 1 / 18-1514-RELEASED-TVN-001 – Composite sampler at Outfall 021 at the Steam Plant

18-1514 26SEP2018

RELEASED



PSNS&IMF, Bremerton, WA
DISTRIBUTION STATEMENT A: Approved
for public release; Distribution is unlimited.

RELEASED

Photo 2 / 18-1514-RELEASED-TVN-004 – Grab sampling port at Outfall 021 at the Steam Plant

18-1514 26SEP2018

RELEASED



PSNS&MF, Bremerton, WA
DISTRIBUTION STATEMENT A: Approved
for public release; Distribution is unlimited.

RELEASED

Photo 3 / 18-1514-RELEASED-TVN-005 – Sampling tube for Outfall 019 at Drydock #6

Complete list of photographs taken during the inspection:

- 18-1514-RELEASED-TVN-001 – Composite sampler at Outfall 021 at the Steam Plant
- 18-1514-RELEASED-TVN-002 – Grab sampling port at Outfall 021 at the Steam Plant
- 18-1514-RELEASED-TVN-003 – Utility sink under the grab sampling port at Outfall 021 at the Steam Plant
- 18-1514-RELEASED-TVN-004 – Grab sampling port at Outfall 021 at the Steam Plant
- 18-1514-RELEASED-TVN-005 – Sampling tube for Outfall 019 at Drydock #6
- 18-1514-RELEASED-TVN-006 – Sampling tube for Outfall 019 at Drydock #6

Note: Photographs were taken on September 26, 2018 by a facility photographer with a Canon EOS 5D Mark IV camera and provided to the EPA via email on October 5, 2018.

Facility Information

FRS Facility UIN	110006894833
NPDES ID	WA0002062
Permit Name	DEFENSE, NAVY
Major/Minor	Major
Permit SIC Desc	Ship Building And Repairing
Water Body Name	SINCLAIR INLET
TMDL ID	42,347

Facility Location

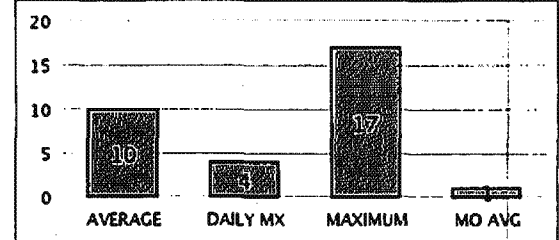
LAT	47.56212
LONG	-122.63729

Last Formal Enforcement Action

EA Identifier	
Final Order Issued	
EA Type Desc	

Permit Information

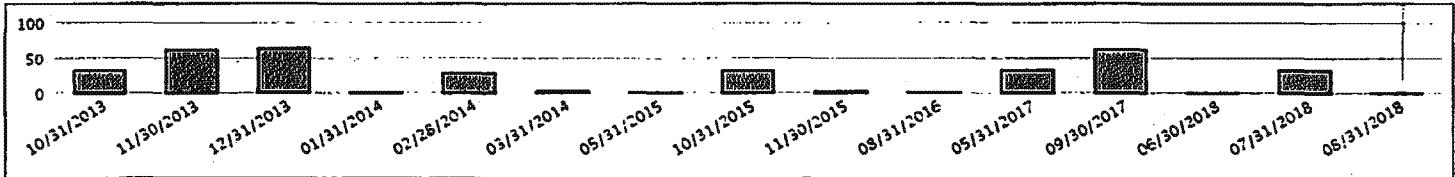
Original Issue Date	3/2/94
Issue Date	3/2/94
Effective Date	4/1/94
Expiration Date	4/1/99
Permit Status	ADC



Number and Months of Violations

355

15



Month	Outfall	Parameter Code and Name	DMR Value	Permit Limit	% Exceeds	Limit Type	#V	Due/Rec'd	#DL
OCT 2013	018 B	01119 Copper, total recoverable	.64	.44 lb/d	45	AVERAGE	31	11/10 11/15	5
OCT 2013	018 B	01119 Copper, total recoverable	1.06	.77 lb/d	38	MAXIMUM	1	11/10 11/15	5
NOV 2013	018 B	01119 Copper, total recoverable	.026	.019 mg/L	37	AVERAGE	30	12/10 12/11	1
NOV 2013	018 B	01119 Copper, total recoverable	.038	.033 mg/L	15	MAXIMUM	1	12/10 12/11	1
NOV 2013	018 B	01119 Copper, total recoverable	.87	.44 lb/d	98	AVERAGE	30	12/10 12/11	1
NOV 2013	018 B	01119 Copper, total recoverable	1.35	.77 lb/d	75	MAXIMUM	1	12/10 12/11	1
DEC 2013	018 B	01119 Copper, total recoverable	.028	.019 mg/L	47	AVERAGE	31	1/10 1/14	4
DEC 2013	018 B	01119 Copper, total recoverable	.058	.033 mg/L	76	MAXIMUM	1	1/10 1/14	4
DEC 2013	018 B	01119 Copper, total recoverable	.97	.44 lb/d	120	AVERAGE	31	1/10 1/14	4
DEC 2013	018 B	01119 Copper, total recoverable	2.06	.77 lb/d	168	MAXIMUM	1	1/10 1/14	4
JAN 2014	018 A	01119 Copper, total recoverable	.81	.77 lb/d	5	MAXIMUM	1	2/10 2/11	1
FEB 2014	018 B	01119 Copper, total recoverable	.5	.44 lb/d	14	AVERAGE	28	3/10 3/12	2
MAR 2014	018 B	01119 Copper, total recoverable	.039	.033 mg/L	18	MAXIMUM	1	4/10 4/15	5
MAR 2014	018 B	01119 Copper, total recoverable	1.62	.77 lb/d	110	MAXIMUM	1	4/10 4/15	5
MAY 2015	018 B	01119 Copper, total recoverable	.035	.033 mg/L	6	MAXIMUM	1	6/10 6/16	6
OCT 2015	018 B	01119 Copper, total recoverable	.46	.44 lb/d	5	AVERAGE	31	11/10 11/06	
OCT 2015	018 B	01119 Copper, total recoverable	1	.77 lb/d	30	MAXIMUM	1	11/10 11/06	
NOV 2015	018 B	01119 Copper, total recoverable	.034	.033 mg/L	3	MAXIMUM	1	12/10 12/09	
NOV 2015	018 B	01119 Copper, total recoverable	.94	.77 lb/d	22	MAXIMUM	1	12/10 12/09	
AUG 2016	018 B	01119 Copper, total recoverable	.92	.77 lb/d	19	MAXIMUM	1	9/10 9/09	
MAY 2017	018 A	01119 Copper, total recoverable	.05	.033 mg/L	52	MAXIMUM	1	6/10 6/06	
MAY 2017	018 A	01119 Copper, total recoverable	.51	.44 lb/d	16	AVERAGE	31	6/10 6/06	
MAY 2017	018 A	01119 Copper, total recoverable	1.68	.77 lb/d	118	MAXIMUM	1	6/10 6/06	
SEP 2017	018 A	01119 Copper, total recoverable	.04	.019 mg/L	111	AVERAGE	30	10/10 10/06	
SEP 2017	018 A	01119 Copper, total recoverable	.16	.033 mg/L	385	MAXIMUM	1	10/10 10/06	
SEP 2017	018 A	01119 Copper, total recoverable	.73	.44 lb/d	66	AVERAGE	30	10/10 10/06	
SEP 2017	018 A	01119 Copper, total recoverable	2.94	.77 lb/d	282	MAXIMUM	1	10/10 10/06	
JUN 2018	019 A	01119 Copper, total recoverable	1.64	1.44 lb/d	14	DAILY MX	1	7/10 7/10	
JUL 2018	019 A	01119 Copper, total recoverable	.036	.033 mg/L	9	DAILY MX	1	8/10 8/10	
JUL 2018	019 A	01119 Copper, total recoverable	1.94	.83 lb/d	134	MO AVG	31	8/10 8/10	
JUL 2018	019 A	01119 Copper, total recoverable	3.6	1.44 lb/d	150	DAILY MX	1	8/10 8/10	
AUG 2018	019 A	01119 Copper, total recoverable	1.52	1.44 lb/d	6	DAILY MX	1	9/10 9/07	

WA0002062

DEFENSE, NAVY

of Violations: 355

Month	Pollutant	Value Reported in DMR	Effluent Limitation	Limit Type
October 2013	Copper, total recoverable	.64 lb/d	.44 lb/d	Average (Data Migration)
October 2013	Copper, total recoverable	1.06 lb/d	.77 lb/d	Maximum (Data Migration)
November 2013	Copper, total recoverable	.026 mg/L	.019 mg/L	Average (Data Migration)
November 2013	Copper, total recoverable	.038 mg/L	.033 mg/L	Maximum (Data Migration)
November 2013	Copper, total recoverable	.87 lb/d	.44 lb/d	Average (Data Migration)
November 2013	Copper, total recoverable	1.35 lb/d	.77 lb/d	Maximum (Data Migration)
December 2013	Copper, total recoverable	.028 mg/L	.019 mg/L	Average (Data Migration)
December 2013	Copper, total recoverable	.058 mg/L	.033 mg/L	Maximum (Data Migration)
December 2013	Copper, total recoverable	.97 lb/d	.44 lb/d	Average (Data Migration)
December 2013	Copper, total recoverable	2.06 lb/d	.77 lb/d	Maximum (Data Migration)
January 2014	Copper, total recoverable	.81 lb/d	.77 lb/d	Maximum (Data Migration)
February 2014	Copper, total recoverable	.5 lb/d	.44 lb/d	Average (Data Migration)
March 2014	Copper, total recoverable	.039 mg/L	.033 mg/L	Maximum (Data Migration)
March 2014	Copper, total recoverable	1.62 lb/d	.77 lb/d	Maximum (Data Migration)
May 2015	Copper, total recoverable	.035 mg/L	.033 mg/L	Maximum (Data Migration)
October 2015	Copper, total recoverable	.46 lb/d	.44 lb/d	Average (Data Migration)
October 2015	Copper, total recoverable	1 lb/d	.77 lb/d	Maximum (Data Migration)
November 2015	Copper, total recoverable	.034 mg/L	.033 mg/L	Maximum (Data Migration)
November 2015	Copper, total recoverable	.94 lb/d	.77 lb/d	Maximum (Data Migration)
August 2016	Copper, total recoverable	.92 lb/d	.77 lb/d	Maximum (Data Migration)
May 2017	Copper, total recoverable	.05 mg/L	.033 mg/L	Maximum (Data Migration)
May 2017	Copper, total recoverable	.51 lb/d	.44 lb/d	Average (Data Migration)
May 2017	Copper, total recoverable	1.68 lb/d	.77 lb/d	Maximum (Data Migration)
September 2017	Copper, total recoverable	.04 mg/L	.019 mg/L	Average (Data Migration)
September 2017	Copper, total recoverable	.16 mg/L	.033 mg/L	Maximum (Data Migration)
September 2017	Copper, total recoverable	.73 lb/d	.44 lb/d	Average (Data Migration)
September 2017	Copper, total recoverable	2.94 lb/d	.77 lb/d	Maximum (Data Migration)
June 2018	Copper, total recoverable	1.64 lb/d	1.44 lb/d	Daily Maximum
July 2018	Copper, total recoverable	.036 mg/L	.033 mg/L	Daily Maximum
July 2018	Copper, total recoverable	1.94 lb/d	.83 lb/d	Monthly Average
July 2018	Copper, total recoverable	3.6 lb/d	1.44 lb/d	Daily Maximum
August 2018	Copper, total recoverable	1.52 lb/d	1.44 lb/d	Daily Maximum

Month	Pollutant	Value Reported in DMR	Effluent Limitation	Limit Type	Violation Count
October 2013	Copper, total recoverable	.64 lb/d	.44 lb/d	Average (Data Migration)	31
November 2013	Copper, total recoverable	.87 lb/d	.44 lb/d	Average (Data Migration)	30
December 2013	Copper, total recoverable	.97 lb/d	.44 lb/d	Average (Data Migration)	31
February 2014	Copper, total recoverable	.5 lb/d	.44 lb/d	Average (Data Migration)	28
October 2015	Copper, total recoverable	.46 lb/d	.44 lb/d	Average (Data Migration)	31
May 2017	Copper, total recoverable	.51 lb/d	.44 lb/d	Average (Data Migration)	31
September 2017	Copper, total recoverable	.73 lb/d	.44 lb/d	Average (Data Migration)	30
Unit Total					212
November 2013	Copper, total recoverable	.026 mg/L	.019 mg/L	Average (Data Migration)	30
December 2013	Copper, total recoverable	.028 mg/L	.019 mg/L	Average (Data Migration)	31
September 2017	Copper, total recoverable	.04 mg/L	.019 mg/L	Average (Data Migration)	30
Unit Total					91
Limit Total					303
June 2018	Copper, total recoverable	1.64 lb/d	1.44 lb/d	Daily Maximum	1
July 2018	Copper, total recoverable	3.6 lb/d	1.44 lb/d	Daily Maximum	1
August 2018	Copper, total recoverable	1.52 lb/d	1.44 lb/d	Daily Maximum	1
Unit Total					3
July 2018	Copper, total recoverable	.036 mg/L	.033 mg/L	Daily Maximum	1
Unit Total					1
Limit Total					4

Month	Pollutant	Value Reported in DMR	Effluent Limitation	Limit Type	Violation Count
October 2013	Copper, total recoverable	1.06 lb/d	.77 lb/d	aximum (Data Migration)	1
November 2013	Copper, total recoverable	1.35 lb/d	.77 lb/d	aximum (Data Migration)	1
December 2013	Copper, total recoverable	2.06 lb/d	.77 lb/d	aximum (Data Migration)	1
January 2014	Copper, total recoverable	.81 lb/d	.77 lb/d	aximum (Data Migration)	1
March 2014	Copper, total recoverable	1.62 lb/d	.77 lb/d	aximum (Data Migration)	1
October 2015	Copper, total recoverable	1 lb/d	.77 lb/d	aximum (Data Migration)	1
November 2015	Copper, total recoverable	.94 lb/d	.77 lb/d	aximum (Data Migration)	1
August 2016	Copper, total recoverable	.92 lb/d	.77 lb/d	aximum (Data Migration)	1
May 2017	Copper, total recoverable	1.68 lb/d	.77 lb/d	aximum (Data Migration)	1
September 2017	Copper, total recoverable	2.94 lb/d	.77 lb/d	aximum (Data Migration)	1
Unit Total					10
November 2013	Copper, total recoverable	.038 mg/L	.033 mg/L	aximum (Data Migration)	1
December 2013	Copper, total recoverable	.058 mg/L	.033 mg/L	aximum (Data Migration)	1
March 2014	Copper, total recoverable	.039 mg/L	.033 mg/L	aximum (Data Migration)	1
May 2015	Copper, total recoverable	.035 mg/L	.033 mg/L	aximum (Data Migration)	1
November 2015	Copper, total recoverable	.034 mg/L	.033 mg/L	aximum (Data Migration)	1
May 2017	Copper, total recoverable	.05 mg/L	.033 mg/L	aximum (Data Migration)	1
September 2017	Copper, total recoverable	.16 mg/L	.033 mg/L	aximum (Data Migration)	1
Unit Total					7
Limit Total					17
July 2018	Copper, total recoverable	1.94 lb/d	.83 lb/d	Monthly Average	31
Unit Total					31
Limit Total					31
Copper, total recoverable					355